

## ABSTRACT OF THE DISCLOSURE

Disclosed is a ring type wavelength division multiplexing (WDM) passive optical network (PON) system using the same wavelength for forward and backward channels while inexpensively implementing a redundancy function, and a switching media converter usable in the ring type WDM PON system. The WDM PON system provided a redundancy function to each node, so that the central office of the system can have a simplified architecture. Accordingly, there is an advantage in that the construction costs of the central office can be reduced. And, the network construction costs can be minimized because it is possible to provide a desired redundancy to a part of the nodes, taking into consideration the significance of each node.